

CLAIMS

1. A device (100) for automatically detecting markings of an ophthalmic lens (10; 10'), the device comprising a support (110) adapted to receive said lens (10; 10') and, on either side of said support (110), firstly first illumination means (120) for illuminating the ophthalmic lens (10) installed on said support (110), and secondly first acquisition and analysis means (130) for acquiring and analyzing the light transmitted through said lens (10; 10'), the device being characterized in that it includes an activatable and deactivatable pattern filter (140) between said first illumination means (120) and said support (110).
2. A device (100) according to claim 1, characterized in that the first acquisition and analysis means (130) are suitable for processing the signal output by the activated pattern filter in order to determine the positions of permanent markings of the ophthalmic lens.
3. A device (100) according to claim 1 or claim 2, characterized in that it includes two polarizing filters, one disposed between said first illumination means (120) and said support (110), and the other disposed between said support (110) and said first acquisition and analysis means (130).
4. A device (100) according to any one of claims 1 to 3, characterized in that said pattern filter (140) is formed by a liquid crystal screen.
5. A device (100) according to claims 3 and 4, characterized in that the liquid crystal screen (140) also forms said polarizing filter disposed between said first illumination means (120) and said support (110).

6. A device (100) according to claim 3 or claim 5, characterized in that the polarization of the two filters is arranged in a common direction substantially identical to the polarization direction of the lens to be analyzed.

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7. A device (100) according to any one of claims 1 to 6, characterized in that said first and second illumination means (120) are activatable and deactivatable.

10 8. A device (100) according to any one of claims 1 to 7, characterized in that it includes activatable and deactivatable second illumination means (120') adapted to illuminate an ophthalmic lens (10') installed on said support (110) with light at grazing incidence, said first acquisition and analysis means (130) being suitable for
15 analyzing the light beam transmitted through said lens (10') illuminated with light at grazing incidence.

9. A device (100) according to any one of claims 1 to 8,
20 characterized in that said first acquisition and analysis means (130) comprise a digital camera (134).

10. A device (100) according to claim 9, characterized in that said first acquisition and analysis means (130)
25 include image processor means adapted to process the signal obtained at the output from the camera (134) and means for displaying the processed signal.

11. A device (100) according to claims 9 and 10,
30 characterized in that said first acquisition and analysis means (130) include an optical system between the downstream polarizing filter and the camera (134) for deflecting a light beam and comprising a converging lens (131) and a mirror (132) inclined at 45°.

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12. A device (100) according to any preceding claim, characterized in that it has a frontofocometer including

firstly third illumination means (220) disposed laterally relative to said first illumination means (120) and adapted to generate a light beam directed onto an ophthalmic lens installed on said support positioned
5 facing said third illumination means, and secondly second acquisition and analysis means (230) for acquiring and analyzing the light beam transmitted through said lens installed on said support.

10 13. A device (100) according to claim 12, characterized in that the support (110) is displaceable in translation along two perpendicular axes.

14. A device (100) according to claim 13, characterized
15 in that it includes means for measuring the displacement of the support relative to an initial position.

15. A device (100) according to claim 14, characterized in that said measurement means comprise incremental
20 encoders.

16. A device (100) according to any one of claims 1 to 15, characterized in that said support (110) includes at least one passive pointer which, when illuminated by said
25 first illumination means (120) forms, in shadow, a positioning image on said first acquisition and analysis means (130) enabling the position of said support (110) to be determined in a stationary frame of reference.

30 17. A device (100) according to claim 16, characterized in that each passive pointer presents an outer or inner contour line that is polygonal.

18. A device (100) according to claim 17, characterized
35 in that each passive pointer presents an outer or inner contour line that is circular.

19. A device (100) according to claim 17, characterized in that each passive pointer presents an outer or inner contour line that is cruciform.